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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/647,998	08/26/2003	John Pether	131279.1034 (B.036AUS)	3085
60148	7590	12/27/2007	EXAMINER	
GARDERE / JAMES HARDIE			HYUN, PAUL SANG HWA	
GARDERE WYNNE SEWELL, LLP				
1601 ELM STREET		ART UNIT	PAPER NUMBER	
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DALLAS, TX 75201				
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		12/27/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/647,998	PETHER ET AL.	
	Examiner Paul S. Hyun	Art Unit 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 17 October 2007.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-21 is/are pending in the application.  
 4a) Of the above claim(s) 3 and 18-21 is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1,2 and 4-17 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 17 October 2007 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date: _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/17/07</u> .  | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

**REMARKS**

Claims 1-21 remain pending with claims 3 and 18-21 being withdrawn from further consideration by the Examiner. However, claim 3 remains subject to rejoinder upon the allowance of the base claim. Applicants amended claims 1, 2, 4-6, 9 and 17.

The amended Abstract filed by Applicants has been acknowledged. Consequently, the objection to the Abstract cited in the previous Office action has been withdrawn.

The objection to the Specification cited in the previous Office action has been withdrawn in light of the clarification.

The Drawings as well as the amended Specification describing the newly filed Drawing sheets filed by Applicants have been acknowledged. Consequently, the objection to the Drawings cited in the previous Office action has been withdrawn.

The claim objections cited in the previous Office action have been withdrawn in light of the amendments/clarification.

The claim rejections under 35 U.S.C. section 112 cited in the previous office action have been withdrawn.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 1, 2, 9-11 and 14-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Shaw (US 3,728,895).**

Shaw discloses a rectangular apparatus for conducting compression tests on a sample, such as soil (see lines 5-8, col. 1 and Figs. 1-3). The apparatus comprises an outer frame 12 and an inner cavity 50 delimited by a flexible diaphragm 34, which is configured to deform under pressure. Access to the inner cavity can be achieved via openings 18 located on the outer frame. The apparatus further comprises pressure chambers 40 situated between the diaphragms and the outer frame that are configured to exert tri-axial pressure on the sample placed in the inner cavity.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shaw in view of Crockford (US 6,591,690 B1).**

Shaw does not disclose the use of a resilient biasing means.

Crockford discloses that tri-axial compression devices comprising spring-biased walls are well-known in the art (see lines 40-51, col. 3). In light of the disclosure of Crockford, it would have been obvious to one of ordinary skill in the art to use spring-biased plates instead of flexible membranes in the Shaw apparatus since the

displacement of a spring is directly correlated to the force exerted by the spring.

Although Crockford does not explicitly disclose the use of a leaf spring, it would have been obvious to one of ordinary skill in the art to use any spring, including a leaf spring, to exert an optimal pressure.

**Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shaw.**

Shaw is designed to exert pressure in all three axes, not bi-axially as recited in the claim. However, it would have been obvious to one of ordinary skill in the art to remove the flexible diaphragm on two of the faces of the inner cavity so that the response of the sample to biaxial pressure, instead of tri-axial pressure, can be observed.

**Claims 7, 8, 12, 13 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shaw in view of Kellner (US 4,483,197).**

Shaw does not disclose windows, a heating, a cooling means, or a lining configured to minimize friction.

With respect to the windows, Kellner discloses an apparatus for testing soil (see Fig. 1). The apparatus is configured to exert pressure on the soil sample that is placed inside the apparatus. The apparatus comprises a housing that is made from a transparent material to enable viewing of the sample (see line 65, col. 3). In light of the disclosure of Kellner, it would have been obvious to one of ordinary skill in the art to

make the Shaw apparatus out of a transparent material so that the sample can be viewed during testing.

With respect to the heating and the cooling means, the apparatus disclosed by Kellner further comprises a heater for heating the soil sample to simulate real-life soil temperatures (see lines 45-55, col. 5). In light of the disclosure of Kellner, it would have been obvious to one of ordinary skill in the art to provide the Shaw apparatus with a heater so that it can also simulate real-life soil temperatures. Likewise, it would have been obvious to one of ordinary skill in the art to provide a cooling means as well.

With respect to claim 17, Kellner discloses the use of an anti-frictional coating 15 to minimize friction between the soil and the container. In light of the disclosure of Kellner, it would have been obvious to one of ordinary skill in the art to coat the inner cavity of the Shaw apparatus with an anti-frictional coating to minimize the damage to the apparatus caused by friction.

### ***Response to Arguments***

Applicant's arguments with respect to the art rejections have been considered but are moot in view of the new grounds of rejection. The amendments necessitated new grounds of rejection.

### ***Conclusion***

Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul S. Hyun whose telephone number is (571)-272-8559. The examiner can normally be reached on Monday-Friday 8AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on (571)-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

PSH  
12/21/07



BRIAN SINES  
PRIMARY EXAMINER